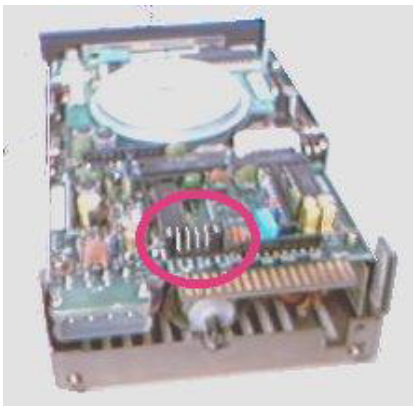
INSTALLING A 3 INCH FLOPPY TEAC DRIVE "B" ON A PC AND USING CPDRead AND CPDWrite TO READ & WRITE EINSTEIN DISCS.

NOTE
A more recent disk image reader and writer for Einstein 3.5" floppies CPCDiskXP . Works from Windows using Win2000 or XP only. A big advance on CPCRead

I have installed a Teac 3" drive which originally came with Einstein TC01 as drive "B" in a DEL 425s/L 486 PC. The drive has a 34 way edge board for data cable connection and a power connection that is the same as a PC's 5 1/4" drive including the appropriate 12 volt and 5 volt power configuration. To install it into my "DELL 425s/L" 486 PC I connected up the cables just as though it were a 5 1/4" drive. (No alterations to the cables were necessary.)



The PC bios was set "Diskette Drive B: 5.25 inch, 560 KB". The jumper settings on the drive were set to "DS1" and "USI".

The software I use to read 3" discs is CPDRead. The software was written by Ulrich Doewich, Ontario, Canada for CPC6128 and Atari ST but Spectrum+3 and Tatung Einstein 3" disks were also successfully transferred onto the hard drive as disc images. A disk image being a single MS DOS file which holds the format and files of a disc read from a PC floppy drive.

CPDWrite (also by Ulrich Doewich) was used successfully to write the format and files within a disk images back to one side of 720k 3 1/2" floppy in the 1.4mb. floppy drive "A". The transfered files on the 720k disks were opened and run successfully on the Tatung Einstein and CPC6128.

The disk images were also successfully used for an Einstein, Spectrum+3 and a CPC6128 emulator on the PC.

DISCLAIMER The above fitting of a three inch drive and the below software configurations have worked successfully for me without any hardware or software damage. Whether this will be the case over time or if this would be the case with other computers I can not say. Therefore I disclaim any responsibility for others using the above hardware and below software. It has been said trying to access the 3" drive from windows could crash the computer. Trying to access the drive from DOS with "dir b:" or "b:" will report "General drive failure: Abort, Retry, Fail:" but no harm seems to be done.

I have used a faster AMD K6 500hz PC to successfully read a 720k 3.5" Einstein formatted floppy from a 1.4mb. floppy drive using CPDRead. Trying to write back the image to another 3.5" floppy with CPDWrite reported a "time out failure"

CPDRead & CPDWrite can be downloaded from a number of sites:

http://tacgr.emuunlim.com/utilities/utilities.html
http://genesis8.free.fr/frontend/EMU-UTI.HTM
http://www.classicgaming.com/caprice/downloads.htm

Installing CPDRead & CPDWrite

I use the DOS supplied by Win95 to use CPDRead & CPDWrite. I either boot into dos from a floppy or exit from Win95 with "Restart in MS-DOS mode". I do not use the Win95 dos prompt.

A new folder each for CPDRead and CPDWrite needs to be created on the hard drive. Initially the four files downloaded in the zip folders need to extacted to their respective folders.

The "cpdread.cfg" needs to be edited for the 3" drive as:

```
; CPDRead.CFG - defaults for CPDRead v3.xx
#tracks     = 40    ; valid range is 1 - 80
#drive      = B     ; A or B
#sides      = 1     ; 1 or 2 (both)
#step       = 2     ; number of tracks to advance for each stepping pulse
#media&type = 2     ; drive media and type used..
                    ; 0 for  1.2MB 5.25" floppy in  1.2MB drive
                    ; 0 for 1.44MB  3.5" floppy in 1.44MB drive
                    ; 1 for  360KB 5.25" floppy in  1.2MB drive
                    ; 1 for  720KB  3.5" floppy in  720KB drive
                    ; 2 for  360KB 5.25" floppy in  360KB drive
                    ; 2 for  720KB  3.5" floppy in 1.44MB drive
                    ; 2 for  720KB  3.5" floppy in  720KB drive
```

To create a disk image of the 3" disk in drive "b" at the DOS prompt c:\CPDREAD> use the command line "cpdread filename" a file name extension is not needed. The program presents a very good easy to understand display and will finally report "transfer complete" press to return to DOS. The cpdread folder should now contain the the 3" disk image in a file with the filename used and the extension "*.DSK".

CPDWrite. For writing 3'' image to a 720k 3 .5'' floppy.

The disk image to be written needs to be in the "cpdwrite folder" For writing the disk image to a 720k 3.5" floppy in a 1.4m 3.5" drive "A" the "cpdwrite.cfg" needs to be edited as:

CPDWrite.CFG - defaults for CPDWrite

```
#tracks     = 0     ; valid range is 1 - 85, 0 = use tracks value from image
#drive      = A     ; A or B
#step       = 1     ; number of tracks to advance for each stepping pulse
#media&type = 2     ; drive media and type used..
                    ; 0 for  1.2MB 5.25" floppy in  1.2MB drive
                    ; 0 for 1.44MB  3.5" floppy in 1.44MB drive
                    ; 1 for  360KB 5.25" floppy in  1.2MB drive
                    ; 1 for  720KB  3.5" floppy in  720KB drive
                    ; 2 for  360KB 5.25" floppy in  360KB drive
                    ; 2 for  720KB  3.5" floppy in 1.44MB driv
```

At the dos prompt "C:\CPDWRITE>" use the command line "cpdwrite filename.dsk" . In the DOS window the track being written and head used will be displayed. Finally the program will return to DOS.

To write an image back to the second side of a 720k 3.5" disk the parameter "S" is needed. At the dos prompt "C:\CPDWRITE>" use the command line "cpdwrite filename.dsk S" .

To CPDRead disc images from an Einstein, Spectrum & CPC6128 single sided formatted 720k 3.5'' floppy in a 1.4mb. drive.

The CPCRead.cfg needs to be:

```
; CPDRead.CFG - defaults for CPDRead v3.xx

#tracks     = 40    ; valid range is 1 - 80
#drive      = A     ; A or B
#sides      = 1     ; 1 or 2 (both)
#step       = 1     ; number of tracks to advance for each stepping pulse
#media&type = 2     ; drive media and type used..
                    ; 0 for  1.2MB 5.25" floppy in  1.2MB drive
                    ; 0 for 1.44MB  3.5" floppy in 1.44MB drive
                    ; 1 for  360KB 5.25" floppy in  1.2MB drive
                    ; 1 for  720KB  3.5" floppy in  720KB drive
                    ; 2 for  360KB 5.25" floppy in  360KB drive
                    ; 2 for  720KB  3.5" floppy in 1.44MB drive
                    ; 2 for  720KB  3.5" floppy in  720KB drive
```

To read an image from the second side of a 720k 3.5" disk the parameter "S" is needed. At the dos prompt "C:\CPDREAD>" use the command line "cpdread filename.dsk S" .

END